



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,609	09/02/2003	Brian Jay Vondruska	201PP029A	3691

37535	7590	11/21/2007
LEGAL DEPARTMENT LUBRIZOL ADVANCED MATERIALS, INC 9911 BRECKSVILLE ROAD CLEVELAND, OH 44141-3247		

EXAMINER	
SILVERMAN, ERIC E	

ART UNIT	PAPER NUMBER
1615	

MAIL DATE	DELIVERY MODE
11/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/653,609

Applicant(s)

VONDRUSKA, BRIAN JAY

Examiner

Eric E. Silverman, PhD

Art Unit

1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5 and 7-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 7-11 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicants' response, filed 10/10/2007, has been received. Claims 1, 5, 7 – 11 are pending in this action.

#### ***Response to Arguments***

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Objections***

Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1, on which claim 5 depends, requires an anionic silicone polymer with a molecular weight of at least 1,000 (presumably 1,000 Da). Claim 7 embraces polymers that are not anionic, and which do not have a molecular weight over 1,000 Da.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5, 7 – 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "having a molecular weight of at least 1,000 Mn". Mn is not a unit of molecular weight, it rather stands for number average molecular weight, which is one of several different types of average molecular weights of polymers. Molecular weights are measured in units such as g/mol, Da and kDa. It is possible that Applicant intended "having a number average molecular weight of at least 1,000 Da".

The remaining claims are rejected at least for ultimately depending on claim 1 without resolving this issue.

Claim 7 requires that the silicone is selected from silicones having particular formulas. The silicones, according to parent claim 1, should be anionic and have a molecular weight over 1,000 (presumably Da). However, formulas I, and IV of claim 7 embrace species that are not anionic, and which do not have a molecular weight over 1,000 Da. The metes and bounds of this claim are therefore unclear.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 7 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,867,317 to Buffa et al., in view of US 5,456,851 to Liu et al.

Claim 1 recites a method involving mixing a cationic material with an anionic silicone polymer having a molecular weight of more than 1,000 and an anionic group and subsequently mixing the complex with a rheology modifier (thickener). Claim 5

Art Unit: 1615

specifies the nature of the anionic group, and claim 7 further specifies the structure of the anionic silicone. Claims 8 – 11 further specify the nature of the rheology modifier.

Buffa teaches anionic silicone polymers that are complexed with cationic materials. The anionic silicone polymers are disclosed in examples 1 – 19 (also see US 5,296,625, from which these materials are incorporated by reference), and the cationic materials are disclosed in examples 20 – 29. The complexes themselves are disclosed in examples 30 – 48 and claim 1. Note that the anionic silicones of instant claim 7 are included as components of the complexes of Buffa claim 1. These complexes are said to be useful as ingredients in shampoo or hair conditioning products (col. 1, lines 10 – 21).

What is lacking is the rheology modifier of instant claims 8 – 11.

Liu teaches that shampoos contain thickeners (rheology modifiers) to impart an appropriate viscosity (col. 3, lines 8 – 10). Appropriate thickeners include CARBOPOL (col. 3, lines 10 – 19) which reads on the rheology modifier of instant claims 8 – 11.

It would be prima facie obvious to a person of ordinary skill in the art at the time of the invention to add CARBOPOL to the complex of Buffa. Buffa teaches that the complex is useful in shampoos, but is silent on the additional additives used in shampoos. CARBOPOL is a conventional additive to shampoos, as taught by Liu. Thus it is merely keeping with the express suggestion of the art to mix various compositions known as useful in shampoos in order to make a shampoo product. The artisan would enjoy a reasonable expectation of success, since all of the agents to be mixed are known in the art as useful shampoo agents.

Art Unit: 1615

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric E. Silverman, PhD whose telephone number is 571 272 5549. The examiner can normally be reached on Monday to Friday 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571 272 8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric E. Silverman, PhD  
Art Unit 1615

  
MICHAEL P. WOODWARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600